

## TIGHT PITCH NOZZLE WITH INDIVIDUAL VALVE GATE CONTROL

### ABSTRACT OF THE DISCLOSURE

An injection molding system is disclosed. The system includes a multiple valve gated nozzle. The flow through each valve gate is determined by individually operated valve pins. Each valve pin is independently controlled by a separate actuation unit. In order to achieve a tight pitch between the valve pins, the actuation units are placed in a stacked configuration, with the valve pin controlled by the upper actuation unit passing through the lower actuation unit. The valve pin of the lower actuation unit is offset from a center of the upper actuation unit to allow for the unimpeded passage of the valve pin from the upper actuation unit through the lower actuation unit.